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- (71) Applicant (for all designated States except US):
TRANSPHARMA MEDICAL LTD. [IL/IL]; 2 Yodfat Street, Northern Industrial Zone, Lod 71291 (IL).
- (72) Inventors; and
(75) Inventors/Applicants (for US only): **BIRCHALL**, James [GB/GB]; Yew Tree Cottage, Michaelston-Y-Fedw, Cardiff, CF3 6XT (GB). **LEVIN**, Galit [IL/IL]; 15 Hae-goz Street, 42954 Nordiya (IL). **GERSHONOWITZ**, Amikam [IL/IL]; 26/1 Emek Beit Shean Street, 71700 Modi'in (IL).
- (74) Agent: **WEBB**, Cynthia; Webb & Associates, P.O. Box 2189, 76121 Rehovot (IL).
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(54) Title: **TRANSDERMAL DELIVERY SYSTEM FOR POLYNUCLEOTIDES**

(57) Abstract: The present invention relates to a system for intradermal or transdermal delivery of oligonucleotides or polynucleotides and to methods of use thereof. Particularly, the present invention relates to a system comprising an apparatus that generates micro-channels in the skin of a subject in conjunction with a pharmaceutical composition comprising an oligonucleotide or polynucleotide, wherein the oligonucleotide or polynucleotide can be delivered into the organism through the micro-channels. The system and methods of the present invention achieve expression of target proteins encoded by the polynucleotides, and hence are useful in immunization and gene therapy.



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